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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,929	06/28/2001	Osamu Yoshimura	450100-03300	5386
20999	7590	01/07/2005	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			LE, AMANDA T	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/893,929

Applicant(s)

YOSHIMURA, OSAMU

Examiner

Amanda T Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Drawings***

1. The drawings are objected to because Figure 4 shows that each of Sync circuit 41, 42, 43 has two inputs, yet Figure 5 shows that a Sync circuit has one input and one output. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheets should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhou et al (US 6,278,724).

Zhou et al discloses a RAKE combiner for synchronously combining the phase-corrected de-spread received signals from multi-paths comprising the following claimed limitations:

In claim 1 and similarly claim 5, a reception method for receiving by radio with a pilot a signal transmitted symbol added to transmission data (Fig. 26b, Fig. 1), a phase deciding step of deciding the phase of said pilot symbol from a received signal (Fig. 2, 31, 32, 33, 34, 39); a synchronism deciding step of deciding a synchronized time of the received signal based on a phase and a reference phase (39) obtained in said phase deciding step (Fig. 2, 35, 36, 37, 38, 40, Fig. 1, 12, 14, 15, col. 12, lines 39-50); and a reception processing step of demodulating the received signal with reference to said synchronized time obtained in said synchronism deciding step (Fig. 2, 40, Fig. 1, 15, col. 10, lines 26-32).

In claim 2 and similarly claim 6, “a signal intensity detecting step of detecting a signal intensity of the received signal (Fig. 1, 11, col. 9, lines 57-65), wherein that in said synchronism deciding step (Fig. 1, 12, 14, 15) in such that the synchronized time of the received signal (Fig. 2, 40) is detected based on a phase obtained in said phase deciding step (Fig. 2, 30) and a signal intensity obtained in said signal intensity detecting step (Fig. 2, 41).

In claim 3 and similarly claim 7, “rake composing step of rake-composing plural sequences of signals obtained in said reception processing step, wherein the phase decision in

said phase deciding step is carried out from the received signal of each sequence before being rake-composed in said rake composing step” (Fig. 1, 15).

In claim 4 and similarly claim 8, wherein sequence in which synchronous time cannot be detected in a predetermined state in said synchronism deciding step is not composed in said rake composing step (col. 9, lines 57-65).

In claim 9, “a reception method for receiving a multipath signal transmitted with a pilot symbol added (Fig. 26b, Fig. 1), a first step of comparing a phase of a received signal through respective paths of said multipath signal (Fig. 2, 31, 32, 33, 34) and a reference phase (Fig. 2, 39) to detect their synchronism; a second step of composing only a signal through a path in synchronism to generate a composite received signal depending on a synchronism detection result detected in said first step (Fig. 1, 15, Fig. 26b, 116, Fig. 2, 40); and a third step of decoding the composite received signal obtained in said second step (Fig. 26b, 117).

In claim 10, “a fourth step of detecting a signal intensity of a signal through a path in synchronism (Fig. 1, 11), wherein said second step is such that only a signal through a path in synchronism and having a signal intensity greater than a predetermined signal intensity is composed (col. 9, lines 57-65).

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shirakata et al discloses a method for data carrier phase correction based upon pilot carrier phase error in an OFDM system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda T Le whose telephone number is (571) 272-3052. The examiner can normally be reached on 8:30 A.M. through 2:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).